

REMARKS

Claims 1 - 6, 8 - 19, and 23 - 26, and 30 - 32 are pending in the present case. Claims 1 and 10 are amended herein. Claims 27 - 29 are cancelled herein. Claims 7, 20 - 22, and 33 were previously cancelled. No new matter has been added.

35 U.S.C. §112 Rejections

Claims 1 and 10 have been amended herein and Claims 27 and 28 have been cancelled herein. Support for amendments to Claims 1 and 10 may be found at least at page 13 line 31 - page 14 line 21, page 20 lines 8- 21, page 21 lines 2-19, Figure 3, and Figure 7. It is believed that the amended Claims 1 and 10 overcome the rejection under 35 U.S.C. §112, paragraph 1.

35 U.S.C. Section 103(a) RejectionsClaims 1-6, 8, 10-18, and 23-29

Claims 1-6, 8, 10-18, and 21-29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over United States 6,128,657 by Okanoya et al., hereinafter referred to as the “Okanoya” reference in view of United States Patent No. 6,092,178 by Jindal et al., hereinafter referred to as the “Jindal” reference, and further in view of United States Patent No. 5,864,679 by Kanai et al., hereinafter referred to as the “Kanai”. Claims 27-29 have been cancelled herein, and as such, rejections of those Claims are now moot. Applicant has reviewed the cited references and respectfully submits that the present invention, as recited in Claims 1-6, 8, 10-18, and 23-26, is patentable over the combination of Okanoya, Jindal, and Kanai for the following rationale.

Applicant respectfully directs the Examiner to independent Claim 1 that recites that an embodiment of the present invention is directed to (emphasis added):

A method for routing a transaction to a front-end server, comprising:
 identifying at least one attribute-based category for said transaction;
 attempting to identify at least one of a plurality of front-end servers to process said transaction based at least in part on said identified attribute-based category of said transaction and at least in part on said front-end servers being assigned to execute transactions corresponding to said attribute-based category;
 and
 when at least one of the front-end servers is identified, routing said transaction to one of said at least one identified front-end server;
 when no front-end server is identified, routing said transaction to a default one of the front-end servers; and
determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers.

Independent Claim 10 recites similar limitations. Claims 2-6, 8, and 23-26 that depend from Independent Claim 1 and Claims 11-18 that depend from Independent Claim 10 provide further recitations of the features of the present invention.

Applicant respectfully submits that Okanoya does not disclose, “determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers”, as claimed (emphasis added). Rather, the Applicant submits that the Okanoya reference is silent regarding “determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers”, as claimed (emphasis added). For this reason, Applicant submits that the Okanoya reference does not teach or render obvious the present claimed invention as recited in Independent Claims 1 and 10.

Furthermore, Applicant respectfully asserts that the combination of Okanoya and Jindal fails to teach or suggest the claimed embodiments because the Jindal reference does not

overcome the shortcoming of Okanoya discussed above. Instead, Applicant respectfully submits that the Jindal reference is also silent regarding the limitation of “determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers”, as claimed (emphasis added). For this reason, Applicant submits that the combination of Okanoya in view of Jindal does not teach or render obvious the present claimed invention as recited in Independent Claims 1 and 10.

Moreover, Applicant respectfully asserts that the combination of Okanoya, Jindal, Kanai fails to teach or suggest the claimed embodiments, as the Kanai reference does not overcome the above described shortcomings of the Okanoya and Jindal references. Specifically, Applicant submits that the Kanai reference does not teach or suggest, “determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers”, as claimed (emphasis added).

Per Applicant’s understanding the Kanai reference may disclose a transaction unit in which the data arrangement information of a memory device of a transaction processor is used to determine where to route a newly received transaction (see e.g., col. 14 lines 56-65 and Figure 7 of Kanai). Thus, while the Kanai reference may disclose how to route a transaction, Applicant submits that this is very different from, “determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers”, as claimed (emphasis added). For this reason, Applicant submits that the combination of Okanoya in view of Jindal in further view of Kanai does not teach or render obvious the present claimed invention as recited in Independent Claims 1 and 10.

Additionally, in the “Response to Arguments” on Page 12, the present Office Action (9/06/2006) posits that the Kanai reference discloses “a data arrangement table that stores data relating to a new transaction such that when a new transaction is received the data is use to select an associated transaction processor”. Assuming arguendo that this is true, the Kanai reference still does not disclose, “determining whether the transaction is associated with a new attribute-based category, and if so, assigning the new attribute based category to one of the front end servers”, as claimed (emphasis added). For this additional reason, Applicant submits that the combination of Okanoya in view of Jindal in further view of Kanai does not teach or render obvious the present claimed invention as recited in Independent Claims 1 and 10.

Therefore Applicant respectfully submits that the combination of Okanoya in view of Jindal in further view of Kanai also does not teach or suggest the additional claimed features of the present invention as recited in Claims 2-6, 8, and 23-26 that depend from Independent Claim 1 and Claims 11-18 that depend from Independent Claim 10. Therefore, Applicant respectfully submits that Claims 2-6, 8, 11-18, and 23-26 also overcome the rejection under 35 U.S.C. §103(a), and are in a condition for allowance as being dependent on allowable base claims.

Claims 9 and 19

In the Office Action, the Examiner rejected Claims 9 and 19 under 35 U.S.C. §103(a) as being unpatentable over Okanoya in view of Jindal and further in view of Kanai (as applied to Claim 1) and further in view of U.S. Pat. No. 6,681,244B1 of Cross et al. (herein after the “Cross” reference). Applicant has reviewed the cited references and respectfully submits that

the present invention is not rendered obvious over Okanoya in view of Jindal further in view of Kanai and further in view of Cross.

Applicant respectfully states that Claims 9 and 19 are dependent from allowable Independent Claims 1 and 10 respectively. Applicant further submits that the Cross reference does not cure the above discussed deficiencies of the Okanoya, Jindal, and Kanai references. Therefore, Claims 9 and 19 which depend from allowable Independent Claims are also in condition for allowance as being dependent on allowable base Claims and reciting further features of the present claimed invention.

Moreover, the Examiner is directed to Claim 9 which recites in part, “determining a status of an attribute-based category”. Claim 19 recites a similar limitation and was rejected for the same rationale as Claim 9. Per Applicant’s understanding the Okanoya, Jindal, and Kanai references do not teach or suggest “determining a status of an attribute-based category”, as Claimed. The Cross reference, per Applicant’s understanding, may teach a switch which removes a client address from a network table if the switch does not detect a data packet within a predetermined time interval (see e.g., col. 6 lines 15-25 of Cross). However, this is very different from, and does not teach or suggest, “determining a status of an attribute-based category”, as recited in Claim 9. Thus, for this additional reason, Applicant submits that Claims 9 and 19 are not taught or rendered obvious by Okanoya in view of Jindal further in view of Kanai and further in view of Cross, and are therefore in condition for allowance.

Claim 32

In the Office Action, the Examiner rejected Claim 32 under 35 U.S.C. §103(a) as being unpatentable over Okanoya further in view of U.S. Pub. No. 2002/0161917A1 to Shapiro et al. (herein after the “Shapiro” reference). Applicant has reviewed the cited references and respectfully submits that the present invention is not rendered obvious over Okanoya in further view of Shapiro.

Applicant respectfully states that Claim 32 is dependent from allowable Independent Claim 10. Applicant further submits that the Shapiro reference does not cure the above discussed deficiencies of the Okanoya reference with respect to independent Claim 10. Therefore, Claim 32 which depends from allowable Independent Claim 10 is also in condition for allowance as being dependent on allowable base Claim 10 and reciting further features of the present claimed invention.

Moreover, the Examiner is directed to Claim 32 which recites in part, “program code to update...a table of which attribute-based categories are assigned to which front-end servers”. Per Applicant’s understanding the Okanoya reference does not teach or suggest this limitation. The Shapiro reference, per Applicant’s understanding, may teach monitoring paths between nodes and updating a routing table with a “goodness value” related to the quality of the path (see e.g., page 6 paragraphs 70 and 71 of Shapiro). However, this is very different from, and does not teach or suggest, “program code to update...a table of which attribute-based categories are assigned to which front-end servers”, as recited in Claim 32 (emphasis added). Thus, for this

additional reason, Applicant submits that Claim 32 is not taught or rendered obvious by Okanoya in view of Shapiro, and is therefore in condition for allowance.

Claims 30 and 31

In the Office Action, the Examiner rejected Claims 30 and 31 under 35 U.S.C. §103(a) as being unpatentable over Okanoya further in view Shapiro. Applicant has reviewed the cited references and respectfully submits that the present invention as recited in Claims 30 and 31 is not rendered obvious over Okanoya in further view of Shapiro.

Applicant respectfully directs the Examiner to independent Claim 30 that recites that an embodiment of the present invention is directed to (emphasis added):

A method for routing a transaction to a front-end server, comprising:
 identifying at least one attribute-based category for said transaction;
 attempting to identify at least one of a plurality of front-end servers to process said transaction based at least in part on said identified attribute-based category of said transaction and at least in part on said front-end servers being assigned to execute transactions corresponding to said attribute-based category;
 routing said transaction to one of said at least one identified front-end servers; and
 one or more of said front-end servers,
 maintaining its own table of attribute-based categories for transactions that it has processed;
 for each attribute-based category in its table, maintaining an indication of when a transaction corresponding to the attribute-based category was last processed by the front-end server; and
 after a predetermined time of not processing a transaction corresponding to an attribute-based category in its table, broadcasting an indication of this event to a plurality of workload managers that can route transactions to the front-end server.

Claim 31 that depends from Independent Claim 30 provides further recitations of the features of the present invention.

Per Applicant's understanding, the Okanoya reference does not teach a method including "after a predetermined time of not processing a transaction corresponding to an attribute-based category in its table, broadcasting an indication of this event to a plurality of workload managers that can route transactions to the front-end server", as recited in Claim 30. Therefore, Applicant submits that Claim 30 is neither taught nor rendered obvious by the Okanoya reference.

Applicant respectfully submit that the combination of the Okanoya reference in view of the Shapiro reference does not teach or suggest the Applicant's invention as recited in Claim 30. The Shapiro reference, per Applicant's understanding, may teach monitoring paths between nodes and updating a routing table with a "goodness value" related to the quality of the path (see e.g., page 6 paragraphs 70 and 71 of Shapiro). However, this is very different from, and does not teach or suggest, "after a predetermined time of not processing a transaction corresponding to an attribute-based category in its table, broadcasting an indication of this event to a plurality of workload managers that can route transactions to the front-end server", as recited in Claim 30 (emphasis added). Thus, for this additional reason, Applicant submits that Claim 30 is not taught or rendered obvious by Okanoya in view of Shapiro, and is therefore in condition for allowance.

The present Office Action (09/06/2006) posits on page 13 that Shapiro discloses "providing a dynamic updating process that periodically monitors data traffic flow around a network to determine network node degradation and subsequently notifying/broadcasting same to plural nodes." Applicant disagrees with this imprecise characterization of Shapiro, as Applicant understands Shapiro to teach monitoring traffic flow around a network by examining pathways between nodes and updating a routing table with a "goodness value" related to the

quality of the path (see e.g., page 7, paragraphs 70 and 71 of Shapiro). However, assuming arguendo that the position of the present Office Action is correct, the disclosure of Shapiro is still very different from, and does not suggest or render obvious, “after a predetermined time of not processing a transaction corresponding to an attribute-based category in its table, broadcasting an indication of this event to a plurality of workload managers that can route transactions to the front-end server”, as recited in Claim 30 (emphasis added). Thus, the combination of Okanyyo in view of Shapiro does not teach or render obvious the Applicant’s invention as recited in Claim 30, and this claim overcomes the rejection under 35 U.S.C. §103(a), and is in a condition for allowance.

Therefore Applicant respectfully submits that the combination of Okanayo in view of Shapiro also does not teach or suggest the additional claimed features of the present invention as recited in Claim 31 that depends from Independent Claim 30, and that Claim 31 also overcome the rejection under 35 U.S.C. §103(a), and is in a condition for allowance as being dependent on allowable independent Claim 30.

CONCLUSION


In light of the above remarks and amendments, Applicant respectfully requests allowance of the now allowable Claims 1 - 6, 8 - 19, and 23 - 26, and 30 - 32.

The Examiner is invited to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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